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10/596,588	06/16/2006	Guohong Xie	P22626	8114

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EXAMINER

MITCHELL, JASON D

ART UNIT	PAPER NUMBER
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2193

NOTIFICATION DATE	DELIVERY MODE
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02/03/2011

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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krvuspto@ipmatters.com

Office Action Summary	Application No. 10/596,588	Applicant(s) XIE ET AL.	
	Examiner JASON MITCHELL	Art Unit 2193	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 November 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9, 11-22, 24-35 and 37-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9, 11-22, 24-35 and 37-39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This action is in response to an amendment filed on 11/18/10.

Claims 1-9, 11-22, 24-35 and 37-39 are pending in this application.

Response to Arguments

1. 35 USC § 112 2nd

The applicants' amendments are sufficient to overcome the previous 35 USC 112 2nd rejection of claims 1-6, 14-19, 21 and 27-32. However the amendment also introduces new clarity issues (see below).

2. 35 USC § 101

The applicants' amendments are sufficient to overcome the previous 35 USC 101 rejection of claims 27-39, which is consequently withdrawn.

3. Prior Art Rejection

Claims 1, 14 and 27

In the par. bridging pp. 18 and 19 the applicants state:

The cited paras. 459-460 discuss how to stream an application from a server to a client. The cited paras. 459-460 do not disclose the claim requirements that the base computer add shared application components, including executable files for the program, to a shared folder, and adds local application components of the program to install to a local device of the base computer. Instead, the cited paras. 459-460 of Patel discuss how a builder profiles an application and packages runtime data into an SAS to upload on the server for the client to stream. There is no disclosure of the claim requirements of how shared application components used to execute the program are added to a shared folder the clients accesses to run the program and local application components are added to the local device of the base computer to

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be provided to add to the local devices of the client computers. For instance, the Examiner has not shown where Patel discloses that the server install local application components in a local device of the server and shared application components in a shared folder that the clients, to which the application is deployed, access to run the application, such that both the local and shared application components are executed to run the application.

The examiner respectfully disagrees. Patel discloses that local component are installed on the client machine (par. [0460] “the ApplInstallBlock is sent by the server to the client ... to make the machine ready for streaming that particular application”) and sharable components used to execute the program are added to a shared folder on the server (par. [0128] “Application File Pages 111 ... put on the Application Server 107”; par. [0022] During execution ... page requests are generated”).

Claims 2-6, 15-19 and 28-32

The applicants' arguments regarding these claims refer to and rely on the arguments addressed above in conjunction with claims 1, 14 and 27, and are likewise unpersuasive.

Claims 5, 18 and 31

In the 5th full par. on pg. 20, the applicants state:

The cited para. 258's mention that writes are handled on the client does not disclose a driver loaded onto client computers that intercepts a write to a shared file in the shared folder, to which the base computer added the shared application components, generates a mapping of the shared file to a local copy in the local device of the client, and then applies the write to the local copy. Although the cited para. 258 mentions writes handled on the client so that the client can rewrite without disturbing local customizations, this does not disclose that writes to a shared file in a shared folder, which has the shared application components, including executable

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files, used by the client computers to run the programs, are directed to a mapped-to local copy on the local devices of the clients.

The examiner respectfully disagrees. Patel discloses a driver loaded onto client computer that intercepts writes to a shared file and generates a mapping of the shared file to a local copy of the shared file (par. [0181] : "The file system driver receives all requests form the operating system for files belonging to the application streaming file system ... The file system driver is responsible for converting path names ... into file IDs").

Claims 7, 20 and 33

In last par. on pg. 21, the applicants state:

Patel discusses how files requested by the application are maintained locally at the client to use. The cited Patel does not disclose the claim requirements of building locally the file directory structure including a requested target shared file, wherein the local copy of the file directory structure provides a partial view of the shared file directory structure if target shared files in the shared file directory structure have not been accessed.

The examiner respectfully disagrees. Patel discloses creating a directory structure including a partial view of the shared file (par. [0182] "The user-mode program is responsible for managing the cache of application file contents on the local file system and contacting the application streaming server for file contents that it cannot satisfy out of the local cache"). Managing the cache of application file contents constitutes building a file directory structure and the reference to "file contents that [the cache] cannot satisfy" indicates that the directory structure is partial.

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Claims 8-13, 21-26 and 34-39

The applicants' arguments regarding these claims refer to and rely on the arguments addressed above in conjunction with claims 7, 20 and 33, and are likewise unpersuasive.

Claims 12, 25, and 38

In the par. bridging pp. 22 and 23, the applicants state:

The cited para. 134 does not disclose determining whether a local copy of a requested shared file includes the segments having the requested data. Instead, the cited para. 134 discusses a client cache manager providing requested bits. However, there is no mention that the client cache manager determines whether segments of a local copy of a requested shared file is in the client cache. The Examiner has not shown where Patel discloses that a determination is made of whether a local copy of a shared file includes segments or that the bits are retrieved if a local copy of a file already in the cache does not have the bits. The cited Patel does not disclose determining or considering bits from a local copy of a shared file that is stored locally, instead the cited Patel discusses bits only.

The examiner respectfully disagrees. While Patel does not use the term "segments" it should be clear that the "bits" are analogous to "segments" as claimed. In other words all computer data is ultimately stored as "bits" accordingly when the claim recites "segments" those of ordinary skill in the art would have understood this to refer to a string of bits.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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Claims 7-9, 11-13, 20-22, 24-26, 33-35 and 37-39 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 7 recites:

a mapping of a file directory structure including the target shared file and the target shared file to a local copy of the file directory structure including the target shared file and the shared file in the local device in response to determining that there is no mapping of the file directory structure of the target shared file and target shared file to the local copy

This claim language is not clear. For example, those of ordinary skill in the art would not have recognized the intended distinction between "the target shared file" and "the target shared file". Additionally it is not clear what, if any, distinction, is intended between the "the target shared file" and "the shared file".

For the purposes of this examination the claims will be treated as being directed to generating a mapping between files stored on the client computer and on the server with new mappings added as new files are stored on the client.

Claims 8-9 and 11-13 depend from claim 7 and are likewise rejected.

Claims 20-22, 24-26, 33-35, and 37-39 each incorporate similar language and are rejected accordingly.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 7-9, 11-13, 20-22, 24-26, 33-35 and 37-39 are rejected under 35

U.S.C. 102(b) as being anticipated by US 2002/0157089 to Patel et al. (Patel).

Claims 7, 20 and 33: Patel discloses a method for accessing shared files in a shared folder over a network, comprising:

enabling access to the shared folders accessible over the network (par. [0142] “the application Server to only service read requests”), wherein a shared file directory structure comprises a file directory structure of the shared folders (par. [0181] “The file system driver receives all requests from the operating system for files belonging to the application streaming file system”);

intercepting a write directed to a target shared file comprising one of the shared files in one of the shared folders (par. [0182] “For each file system request ... check to see if it has the requested information in the cache.”; par. [0258] “writes being disallowed or handled on the client itself in a copy-on-write manner”);

generating a mapping of a file directory structure including the target shared file and the shared file to a local copy of the file directory structure including the target shared file and the shared file in local device (par. [0142] “File Spoof Database 210-- The list of files the requests to which need to be redirected to the Client Streaming File System 212”) in response to determining that there is no mapping of the file directory structure of the target shared file and target shared file to the to the local copy in the local device, wherein the local copy of the file directory structure provides a partial view

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of the shared file directory structure if target shared files in the shared file directory structure have not been accessed (par. [0142] "File Spoof Database 210--The list of files the requests to which need to be redirected to the Client Streaming File System 212" note that this list is a partial view of all files for the application); and

applying the write to the local copy of the shared file (par. [0258] "writes being disallowed or handled on the client itself in a copy-on-write manner"; also see e.g. Fig. 16).

Claims 8, 21 and 34: The rejections of claims 7, 20 and 33 are incorporated; further, Patel discloses wherein the write to the local copy in the local device includes only a portion of the shared file, wherein the shared file and the local copy of the shared file comprises of a plurality of segments, and wherein applying the write comprises:

applying the write to update at least one of the segments of the local copy shared (Fig. 16, File 3 1608, pages 1 and 3 and associated text e.g. par. [0212]).

Claims 9, 22 and 35: The rejections of claim 7, 20, 33 are incorporated; further Patel discloses:

receiving a read request to a requested shared file in the shared folder (par. [0195] "file system 803 will satisfy requests for application code or data");

determining whether there is a mapping of the requested shared file to a local copy of the requested shared file (par. [0134] "If it does not have the bits cached, it gets them from the Application Server 107");

accessing data for the read request from the local copy of the requested shared file in response to determining that there is the mapping of the requested shared file to the local copy (par. [0195] “file system 803 will satisfy requests for application code or data by retrieving it from its special cache stored in a native file system”); and

accessing data for the read request from the requested shared file in the shared folder over the network in response to determining that there is no mapping of the requested shared file to the local copy (par. [0195] “file system 803 will satisfy requests for application code or data or by retrieving it directly from the streaming application server 802”).

Claims 11, 24 and 37: The rejections of claims 7, 20 and 33 are incorporated; further Patel discloses the accessed data comprises one of a plurality of segments of the requested shared file, and wherein copying the accessed data to the local copy of the requested shared file comprises copying the accessed segment to the local copy of the shared file in the local device (Fig. 16, Cache 1602).

Claims 12, 25 and 38: The rejections of claims 11, 24 and 37 are incorporated; further Patel discloses the read request is for requested data in one of the segments of the requested shared file, further comprising:

determining whether the local copy of the requested shared file includes the segment having the requested data in response to determining that there is the

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mapping of the requested shared file to the local copy (par. [0134] “If it does not have the bits cached, it gets them from the Application Server 107”);

accessing data from the segment including the requested data in the requested shared file in the shared folder over the network (par. [0134] “If it does not have the bits cached, it gets them from the Application Server 107”);

returning the requested data from the accessed segment; and storing the accessed segment in the local copy of the requested shared file (par. [0134] “If it does not have the bits cached, it gets them from the Application Server 107”).

Claims 13, 26 and 39: The rejections of claims 12, 25 and 38 are incorporated; further Patel discloses storing the accessed segment in the local copy further comprises:

determining whether the local copy includes data for the accessed segment (par. [0134] “If it does not have the bits cached, it gets them from the Application Server 107”);

applying the data in the local copy to the accessed segment to form a modified segment in response to determining that the local copy includes data for the accessed segment (Fig. 16, File 3 1608, pages 1 and 3);

storing the modified segment in the local copy in response to forming the modified segment (Fig. 16, File 3 1608, pages 1 and 3); and

storing the accessed segment in the local copy in response to determining that the local copy does not include data for the accessed segment (par. [0134] “If it does

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not have the bits cached, it gets them from the Application Server 107"; Fig. 16, File 3 1608, pages 1 and 3).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-6, 14-19 and 27-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 2002/0157089 to Patel et al. (Patel).

Claims 1, 14 and 27: Patel discloses a method to create an image to deploy to client computers that communicate over a network, comprising:

installing a program with a base computer, having a local device (par. [0157] "the installation of an application 401"; par. [0459] "the Builder monitors the installation process of a local version of the application"), wherein the base computer is adapted to access to a shared folder accessible to the client computers over a network (par. [0460] "The AppInstallBlock and runtime data are ... uploaded to the application server"), wherein installing the program on the base computer adds shared application components including executable files for the program to the shared folder (par. [0159] "forms the Application File Pages 406"; par. [0128] "Application File Pages 111 ... put on the Application Server 107"; par. [0022] During execution ... page requests are

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generated”) and adds local application components of the program to the local device used by the base computer (par. [0157] “the installation of an application 401”; par. [0159] “forms the ... Stream App Install Block 405”), and creating an image of the local device of the base computer including the local application components of the program (par. [0159] “forms the ... Stream App Install Block 405”; par. [0269] “distribute a single, fixed image across all servers”); and

providing the image to the client computers to apply the local application components of the program to local devices of the client computers, wherein applying the image to the local devices of the client computers enables the client computers to access the shared application components in the shared folder to run the program (par. [0460] “the AppInstallBlock is sent by the server to the client ... to make the machine ready for streaming that particular application”), wherein the clients execute the local application components and the shared application components to run the program (Abstract “redirects file access from the client’s local file system to the streaming server’s file system”).

Patel further discloses installing the program on a client computer enables the client computer to run the program by accessing the shared application components and local application components of the program in the shared folder and in the local device (par. [0460] “the AppInstallBlock is sent by the server to the client ... to make the machine ready for streaming that particular application”; Abstract “redirects file access from the client’s local file system to the streaming server’s file system”).

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Patel does not disclose installing the program on the base computer enables the base computer to run the program by accessing the shared application components and local application components of the program in the shared folder and in the local device [respectively].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to install the program on Patel's base computer (par. [0083] "The stream Enabled Application Install Block is used to install an SAS-based application on a client system"; par. [0157] "Application Install Monitor 403 -- this component monitors the installation of an application 401") to enable the program to access and execute the program components in the shared folder as is done in the client machines (Abstract "redirects file access from the client's local file system to the streaming server's file system"). Those of ordinary skill in the art would have been motivated to do so in order to monitor the installation and execution of the program in its intended environment (par. [0080] "various aspects of the applications are monitored during there actual use on a client"; par. [0082] "the SAS Builder consists of three phases: installation monitoring, execution profiling, and application stream packaging").

Claims 2, 15 and 28: The rejections of claims 1, 14 and 27 are incorporate; further Patel discloses installing the program on the base computer modifies configuration settings for the base computer stored in the local device and adding files to the local

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device (par. [0459] "the Builder monitors ... environment variables added or removed from the system 3103, and any files added or modified in the system directories 3102").

Claims 3, 16 and 29: The rejections of claims 1, 14 and 27 are incorporated; further Patel discloses the program comprises a first program, further comprising:

installing a second program on the base computer to the shared folder, wherein installing the second program adds files for the second program to the shared folder and modifies memory of the base computer (par. [0459] "The AppInstallBlock is created offline ... the Builder monitors the installation process of a local version of the application"), and wherein installing the second program enables the base computer to run the second program by accessing the program files in the shared folder ([0539] "This data includes the code to start and terminate the application");

determining writes to the base computer memory during installation of the second program on the base computer (par. [0459] "The AppInstallBlock is created offline ... the Builder monitors the installation process of a local version of the application"); and

providing the determined writes to the client computers to apply to the client computers, wherein the writes applied to the base computer memory during the installation of the second program are applied to the client computers, and wherein applying the writes to the client computers enables the client computers to access the second program files in the shared folder to run the second program (par. [0460] "the

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AppInstallBlock is sent by the server to the client ... to make the machine ready for streaming that particular application”).

Claims 4, 17 and 30: The rejections of claims 1, 14 and 27 are incorporated; further Patel discloses:

setting the shared folder to read-only after installing the program to the shared folder (par. [0214] “Application file servers may be protected against writing by client machines ... will not allow any data to be written to files that are marked as not modifiable”).

Claims 5, 18 and 31: The rejections of claims 1, 14 and 27 are incorporated; further Patel discloses the image includes a driver that when loaded into the client computers causes the client computers to perform:

intercepting a write request to a requested shared file in the shared folder; generate a mapping of the shared file to a local copy of the shared file in the local devices of the client computers; and applying the write to the local copy of the shared file in the local devices (par. [0258] “writes being disallowed or handled on the client itself in a copy-on-write manner”; par. [0181] :”The file system driver receives all requests form the operating system for files belonging to the application streaming file system”).

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Claims 6, 19 and 32: The rejections of claims 1, 14 and 27 are incorporated; further Patel discloses the image includes a driver that when loaded into the client computers causes the client computers to perform:

intercepting a read request to a requested shared file in the shared folder (par. [0195] "file system 803 will satisfy requests for application code or data");

determining whether there is a mapping of the requested shared file to a local copy of the requested shared file (par. [0134] "If it does not have the bits cached, it gets them from the Application Server 107"; par. [0142] "File Spoof Database 210--The list of files the requests to which need to be redirected to the Client Streaming File System 212");

accessing data for the read request from the local copy of the requested shared file in response to determining that there is the mapping of the requested shared file to the local copy (par. [0195] "file system 803 will satisfy requests for application code or data by retrieving it from its special cache stored in a native file system"); and

accessing data for the read request from the requested shared file in the shared folder over the network in response to determining that there is no mapping of the requested shared file to the local copy (par. [0195] "file system 803 will satisfy requests for application code or data or by retrieving it directly from the streaming application server 802").

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JASON MITCHELL whose telephone number is (571)272-3728. The examiner can normally be reached on Monday-Thursday and alternate Fridays 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bullock Lewis can be reached on (571) 272-3759. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jason Mitchell/
Primary Examiner, Art Unit 2193